

PERCHLORATE

Santa Clara County Information About Perchlorate

Perchlorate is both a naturally occurring and manufactured chemical. It is used as an ingredient in solid fuel for rockets as well as highway flares. Wastes from the improper disposal of perchlorate-containing chemicals are increasingly being discovered in soil and ground water.

An area of contamination has been identified in southern Santa Clara County. The contaminated area begins north of Tennant Avenue in Morgan Hill, extends for nearly 10 miles through San Martin and south to Gilman Road in Gilroy. The eastern border of the perchlorate contamination reaches Foothill Avenue and to the west, the affected area has been identified beyond Monterey Road.

Drinking water containing perchlorate can potentially harm a person's health by interfering with the thyroid function. The Santa Clara County Public Health Department is providing information to help you understand the possible effects of perchlorate and how to protect yourself and your family. It is important to know that perchlorate is not a problem in the municipal water supply.

Perchlorate and Your Health

Perchlorate interferes with normal thyroid function by blocking the uptake of iodine. Iodine, in turn, is essential in making thyroid hormones. Reduced levels of thyroid hormones can lead to a condition called hypothyroidism. Hypothyroidism symptoms include depression, anxiety, unexplained weight gain, and hair loss. In adults, thyroid impairment may affect the regulation of a person's metabolism and other normal body functions. The effects of thyroid impairment in fetus, newborns and children may include changes in behavior, delayed development and decreased learning capability.

People Affected Most by Perchlorate

Certain populations should not drink water containing perchlorate. Women of childbearing age, pregnant women, infants, children, and people with compromised immune systems or thyroid conditions, should take every measure possible to avoid drinking water containing perchlorate.

Current Perchlorate Safety Standards

Currently there is no national standard for a safe level of perchlorate in drinking water. In March 2004, the California Office of Environmental Health Hazard Assessment established a public health goal for perchlorate levels in drinking water of 6 parts per billion (ppb). The public health goal is developed using currently available

scientific information. This level is based solely on health concerns, particularly for more vulnerable consumers such as fetuses, children, pregnant women and the elderly. The public health goal is the first step in the development of a legal maximum contamination level that will follow.

Using Perchlorate Contaminated Water

It is safe to use water containing perchlorate to wash dishes and clothing, to irrigate landscape plants and for bathing. Water containing perchlorate greater than 4ppb of perchlorate **should not** be used for drinking or cooking. Boiling water **does not** remove perchlorate; instead it concentrates the chemical.

Although research on perchlorate's effect on plants is limited, some studies indicate that perchlorate can be taken up into plant and animal products. As a precautionary measure, the Perchlorate Medical Advisory Group (PMAG) recommends that perchlorate contaminated water not be used to water home gardens intended for human consumption. State and federal agencies are conducting additional studies of perchlorate uptake in plants and other food products to better understand the potential risk perchlorate may pose. No conclusive information is yet available.

Protecting Against Perchlorate in Drinking Water

Effective Filtration Systems: Reverse osmosis, distillation, and specialized ion exchange resins can be successful in removing perchlorate from water. The California Department of Health Services (DHS) has certified the use of reverse osmosis products for home use. It is important to check the product itself to determine if it has been certified. The other technologies mentioned above have not been certified for home use. Specific questions regarding these technologies should be directed to the manufacturers and distributors of the individual systems.

Not Effective Filtration Systems: Common household filters, carbon filters, charcoal filters, and water softeners do not remove perchlorate from water. Air stripping, chlorinating, and aerating are also not effective.

Public Health Department

Santa Clara Valley Health & Hospital System



What You Can Do Now

If you believe your water may be contaminated, have your well tested. Once the well has been tested, if your water contains perchlorate, you will need to find an alternative source of drinking water.

The Regional Water Quality Control Board has approved an area for well testing that is free of charge. To determine if you are in the approved testing area, call Olin Corporation at 1-800-295-6141. If you are not in this area, the Santa Clara Valley Water District has a list of laboratories certified to test water for perchlorate at www.valleywater.org.

If you believe that your health has been affected by drinking water containing perchlorate, see your doctor or a health care provider.

If you have any questions or concerns about perchlorate or other public health concerns, please contact the **Public Health Information Line at 408.885.3980**. Public Health Department staff members are available to answer your questions Monday to Friday from 9 am to 4 pm. To find more information about perchlorate, visit any of the following Web sites:

www.valleywater.org/index.htm;

www.epa.gov/safewater/ccl/perchlorate/perchlorate.html;

www.sccphd.org;

www.smneighbor.org;

www.ewg.org/reports/rocketwater/index.php

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